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**FORUM**  
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# JBoss Middleware Roadmap

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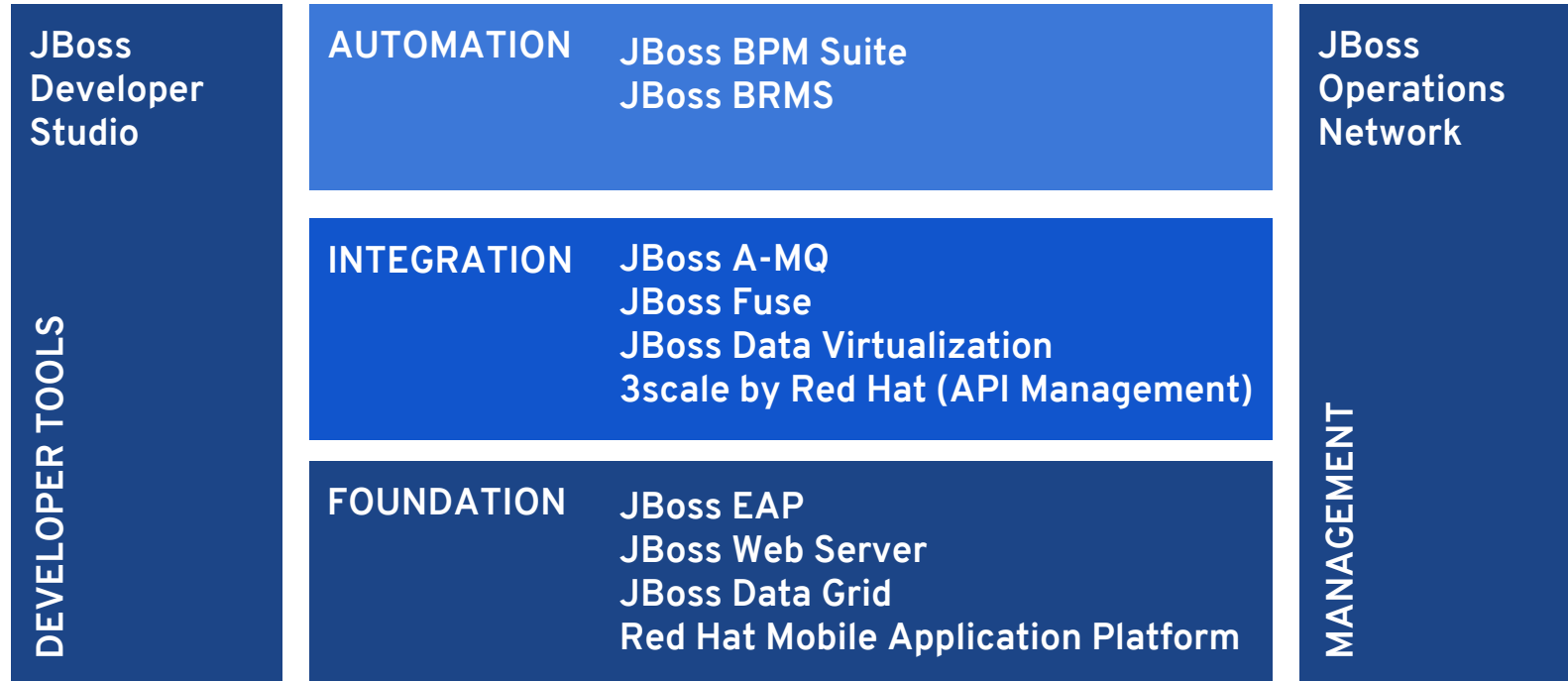


# Disclaimer

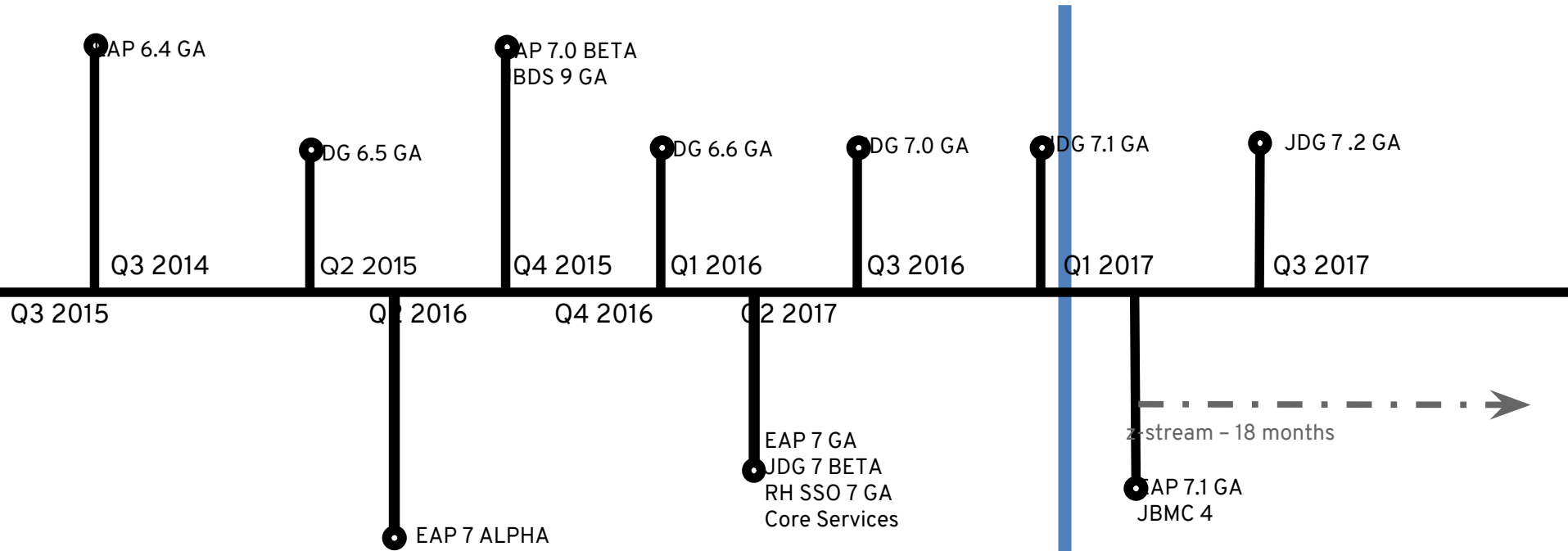
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# Red Hat JBoss Middleware



# ACCELERATE ROADMAP



\* All dates are calendar years

# JBoss EAP 7 - Key Themes

## Developer Productivity

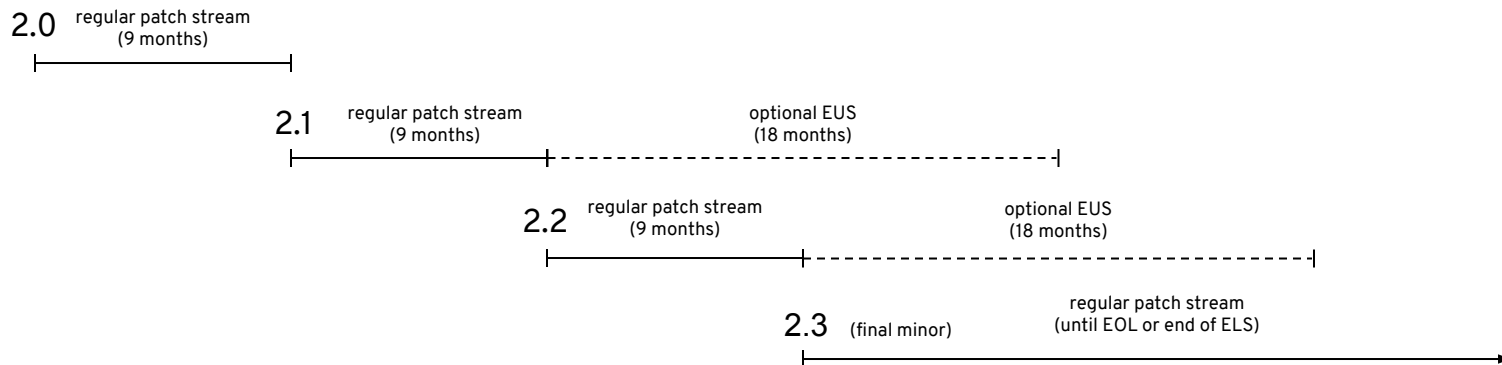
IDE for Java EE 7 Development  
Modularity Enhancements  
Backwards Compatibility / Interop.  
Tested Frameworks

## Operational Efficiency

Management Enhancements  
Batch Utilities  
Web Console Enhancements  
HA / Performance Enhancements  
Interop. (JDG, A-MQ, RH-SSO, JBCS Web)  
EUS / z-stream support (starting in 7.1)

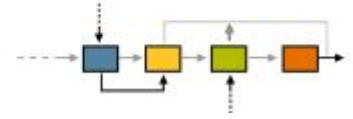
## Technology Trends

- Java EE 7 / Java SE 8
- Cloud : xPaaS / EC2 / Azure
- Messaging Consolidation
- Modern Web Applications, HTTP/2 (7.1+)
- Security Enhancements - Elytron (7.1+)
- EJB Client Simplifications (7.1+)
- Java SE 9 (subject to availability)



## Key Features

- z-streams supported for additional 18 months beyond next minor release
- CVEs and priority fixes only
- No forced upgrade to next minor
- Doesn't apply to .0 release
- Starts with EAP 7.1 (ETA Q2 2017)
- Additional subscription required



## In progress (again)

JSR-366 Approved - Sept 2014

Java EE 8 - JavaOne 2017 (updated Oracle target)

## Updating the Java EE 8 (JSR-366) d

Improved support for HTML5 - HTTP 2.0, JSON Binding

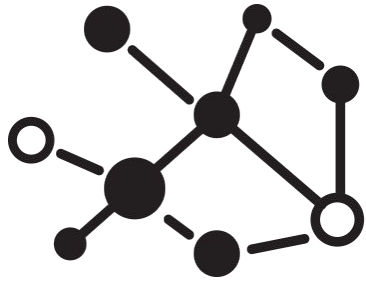
Adding Microservices features: Configuration JSR and Health Check JSR

Dropping Management 2.0 & JMS 2.1 JSRs, and moving MVC JSR outside of Java EE 8

Security (User management, password aliasing, authorization interceptors, more)

Proposed Optional - CORBA IIOP & EJB 2.x





# MicroProfile

Optimize Enterprise Java for a MicroServices Architecture  
Collaboration between **Red Hat, IBM, Tomitribe, Payara** and the  
Java EE community

Announced at DevNation 2016, **1.0 released** at JavaOne 2016

**WildFly Swarm** is **Red Hat's** implementation

Moving to Eclipse Foundation, targeting for Dec, 2017.



# Beyond Java EE



- Wildfly community sub-project
- Focus on both Java EE and MicroProfile microservices
- Immediate goal – Dev. Preview on OSO 3 for Summit



- Reactive Toolkit for the JVM
- Asynchronous and event-driven
- Excels at low latency and high-throughput applications
- Polyglot - supports many JVM-based languages

# JBoss Data Grid 7 - Key Themes

## Real-time Analytics

Big, Fast Data  
Distributed Streams  
Apache Hadoop and Spark Integration  
Remote Task Execution  
eg. fraud detections, liquidity risk

## Polyglot Support

- node.js HotRod client (TP)
- C++, C# HotRod client enhancements
- JavaScript task executors

## Ease of use

New Admin Console  
Remote Task Management  
Controlled shutdown / restart

# JBoss Data Grid 7.1

## Core

Performance enhancements  
Streaming large objects over Hot Rod  
Session externalization from JWS (Tomcat) to JDG cluster, Spring Session support

## Ease of use

Admin Console for JDG Server in Standalone mode

## Real-time analytics

- Apache Spark 2.0 integration (in addition to Spark 1.6 from JDG 7.0)

## Polyglot Support

- C++, C#, node.js HotRod client enhancements

# JBoss Data Grid 7.2 (tentative)

## Core

Full-text query in client-server mode - full support  
Ceph cache store

## Ease of use

Distributed data structures - counters, lists  
Stateful auto scale-out on OpenShift

## Real-time analytics

- Change data capture (Debezium)
- Apache Zeppelin integration

# Core Services

- What is it ?

- A more convenient and streamlined way to deliver common components without coupling them to JBoss EAP's release cadence and lifecycle.

- Who gets it ?

- All Middleware SKUs except JWS\*.

- Roadmap

- JON 3 - already available and receiving regular maintenance
- RH-SSO 7 - Mid May
- Apache HTTPD - April (EAP 7 GA)
- Jsvc - April (EAP 7 GA)
- Connectors (ISAPI and NSAPI) April (EAP 7 GA)

\*formerly EWS

# Red Hat SSO

- What is it ?
  - Standards-based web single sign-on (SAML, OpenID Connect, OAuth)
  - Allows users to authenticate once and seamlessly access numerous related resources
- Who gets it ?
  - Middleware customers via Core Services
  - OpenShift Enterprise, Red Hat Mobile, RHEL OSP Customers
- Roadmap
  - Red Hat SSO 7.1 (BETA - December, GA - Q1 2017)
    - Based on Keycloak 2.3
    - OpenID Connect certified
    - RHEL 7.3 - RPMs and integration with SSSD
    - Fuse and node.js client adapters

# JBoss Management

JBoss ON 3.3 lifecycle is being extended to 2020 in order to facilitate migration to new solutions

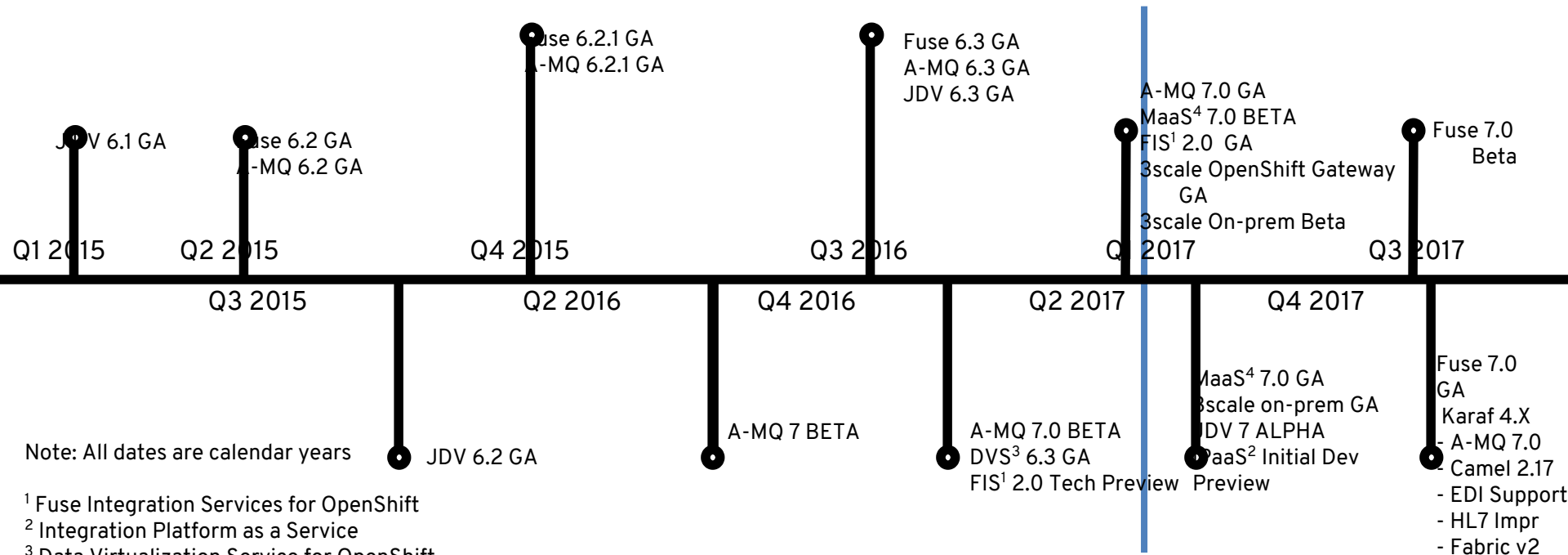
The JBoss middleware manager for CloudForms released a technology preview with CloudForms 4.2

GA availability of the middleware manager is planned with CloudForms 5.0 (planned Summit 2017)

- EAP 6 & 7 are committed
- Fuse & JDG are priorities for inclusion
- Entire MW portfolio to be covered over time

[Middleware manager for CloudForms roadmap](#)

# INTEGRATE ROADMAP



Note: All dates are calendar years

<sup>1</sup> Fuse Integration Services for OpenShift

<sup>2</sup> Integration Platform as a Service

<sup>3</sup> Data Virtualization Service for OpenShift

<sup>4</sup> Messaging as a Service



# JBoss Fuse

## v6.3 - GA October 2016

Updated integration components

Camel, CXF, Karaf

New camel components:

PayPal, ServiceNow

Customer RFEs/Fixes

Tooling updates, install improvements

## v7 Themes - Target 2H/2017

Hosted (Web) developer tooling

Fabric - OpenShift alignment

A-MQ 7, Messaging-as-a-Service integration

Deeper 3scale integration

## Fuse Integration Services 2.0 - Target: Feb 2017

- Tech Preview right now
- Java image updated to support Spring Boot and Camel 2.18
- Karaf image updated to align with Fuse 6.3
- Standardized on s2i build workflows :  
source and binary
- Support for multiple deployment options  
(On-prem, dedicated, online/hosted)

# Fuse 7.0

## Major updates to internal components

Karaf 4.X

Camel 2.18

CXF

A-MQ 7.0

JBoss Transaction Manager (Narayana)

Undertow

Keycloak for SSO

Fabric8 v2

## New feature support

HL7 V2

HL7 FHIR

ServiceNow

API Management

## Deprecated Components

- Jetty
- Geronimo

# JBoss A-MQ

## v6.3 - GA: October 2016

ActiveMQ component update. Maintenance/Fixes

## v7 - Beta now. Target GA: March 2017

Consistent Java broker implementation across EAP 7, Fuse 7 and standalone A-MQ 7

ActiveMQ Artemis core

Multi-protocol: HQ Core, OpenWire, STOMP, AMQP 1.0, MQTT, Websockets. JMS 2 API support

New Interconnect Router component (RHEL-only)

Message router, not broker. Does not take ownership of messages.

Works standalone to provide low-latency broker-less messaging. Integrates with the broker for store-and-forward

Clients

AMQP 1.0 clients: Java JMS, C#, Python, C/C++, Ruby, Go, JavaScript/Node.js

Backward compatibility: MRG-M 3.2 AMQP 1.0 clients, A-MQ 6.X Openwire clients and HornetQ Core clients

Messaging as a Service

Java Broker + Interconnect + OpenShift for elastic, scalable messaging

# Integration Platform as a Service (iPaaS)

- What is it ?

- iPaaS: A new web-based tool chain, delivered as-a-Service (hosted by Red Hat), that allows “citizen technologists” to build, deploy and run integration apps in containers on OpenShift.
- Fuse Integration Services (FIS): An updated CLI and Eclipse-based tool chain, delivered on premise, that allows technical developers to:
  - Build, deploy and run integration apps in containers on OpenShift
  - Assist/support citizen technologists

- Who gets it ?

- Available by discrete entitlement. Details are still in planning.

- Roadmap

- Initial developer preview Q1/2017
- Continued evolution of developer preview
- GA: TBD

# JBoss Data Virtualization

## v6.3 - GA October 2016

JDG for materialization

Apache Spark Integration

OData v4

New and updated data source support:

HBase, RedShift, Accumulo, SAP HANA,  
Cassandra, Vertica, Solr,  
Cloudera/Impala, Hortonworks/Hive

## v7 Themes

Persona-targeted tooling and usability

Change data capture for auto-caching

EAP 7 compatibility

## Data Virtualization Service - GA November 2016

- Data API
  - only expose necessary data based on the needs of an end user
  - Data “gateway” service to off-PaaS databases and other data stores
- Data Services
  - Simplified data access for microservices
- OData v4

## DVS Update - Q1/2016

- Web tooling for creating data services
- Data Virt + Data Grid integration

# 3scale API Management Platform

## Hybrid Deployment Mode

- Available now under Red Hat subscription
- Gateway (Traffic Management) runs on-premise
- Gateway docker image for OpenShift available
- “Backend” functionality (security, policy, analytics, billing, etc.) run as SaaS
- Developer Portal runs as SaaS

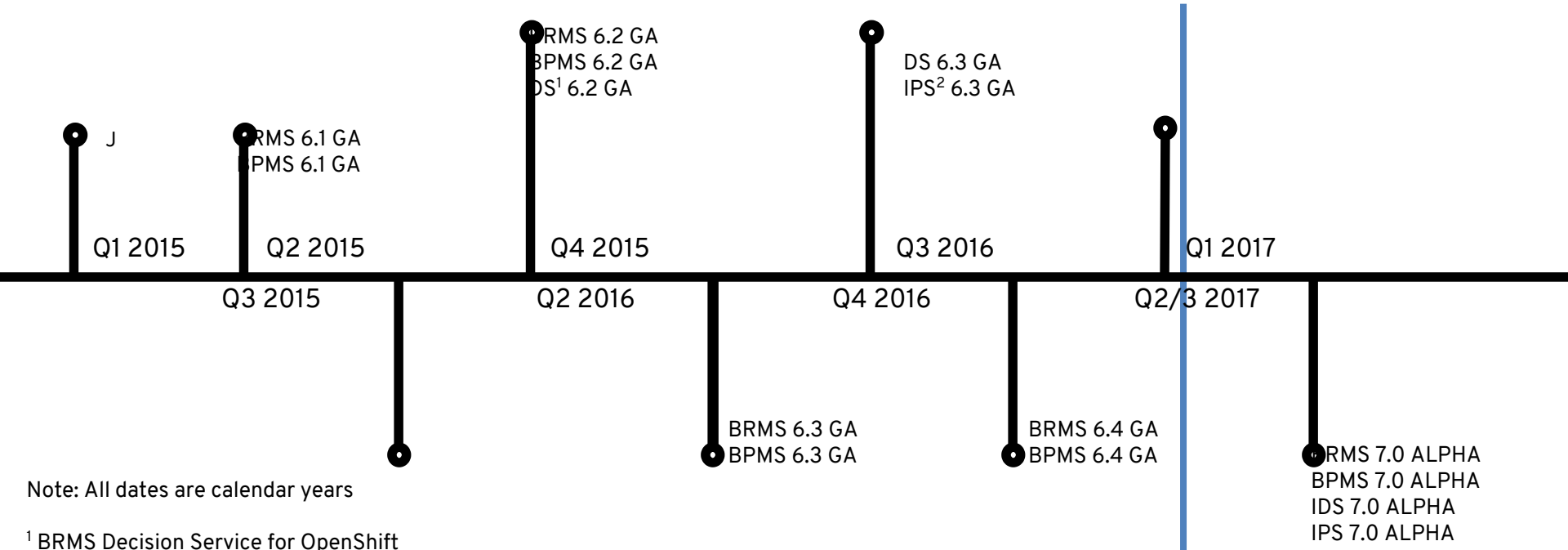
## On Premise Option

- API backend functionality integrated with OpenShift Container Platform
- Delivered as a software solution
- Mid CY17 Target

## Open Source

- Red Hat is committed to open source'ing the 3scale technologies
- Timing: will follow availability of On-Premise Option.

# AUTOMATE ROADMAP



Note: All dates are calendar years

<sup>1</sup> BRMS Decision Service for OpenShift

<sup>2</sup> BPMS Intelligent Process Server for OpenShift

# JBoss BRMS

## v6.3

Updated UI look and feel  
Customer RFEs  
Planner execution server  
Additional platform support  
    Windows 2014  
    MariaDB  
Additional language support

## v7 Themes

Customer first impression  
CEP capabilities for IoT scenarios  
Usability for non-developers  
Simplify Planner adoption  
Competitive features vs iLog

## v6.4

- Maintenance/fixes
- Select RFEs
- Final v6 minor release

## Decision Service

- Decision server (runtime) image for OpenShift
- Availability on OpenShift Dedicated
- Image for Business Central UI components



# JBoss BPM Suite

## v6.3

Updated UI look and feel  
Customer RFEs  
User/group management  
    RH SSO Integration  
Additional platform support  
    Windows 2014  
    MariaDB  
Additional language support

## v6.4

- Maintenance/fixes
- Select RFEs
- Final v6 minor release

## v7 Themes

Customer first impression  
Dynamic Case Management  
Usability for non-developers  
    Low/no-code environment  
EAP 7 compatibility

## Intelligent Process Service

- Process execution server (runtime)  
    container image for OpenShift
- Availability on OpenShift Dedicated
- Container image for Business Central UI  
    components

# THANK YOU



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